

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An apparatus for forming an image, in which hardware resources for use in the forming of the image are provided, and a program runs in respect of the forming of the image, said apparatus comprising:

an image data converting hardware unit configured to convert a format of image data from a first format to a second format, said first format and said second format each being one of NFC1, K4, K8, JPEG, RJ2K, a four-value format, a binary format, an eight-value format, and an MH/MR/MMR format, said image data converting unit further configured to resize the image data by increasing or decreasing the linear dimensions of the image; and a format unifying unit configured to unify a plurality of formats of image data by utilizing said image data converting unit; and

a controller configured to control the image data converting hardware unit and the format unifying unit, the controller configured to create a first thread and a second thread, the first thread configured to control conversion of first image data by the image data converting hardware unit and the format unifying unit, and the second thread configured to control conversion of second image data by the image data converting hardware unit and the format unifying unit.

Claim 2 (Original): The apparatus as claimed in claim 1, wherein said image data converting unit converts formats of image data used by a copier, a printer, a scanner, and a facsimile.

Claim 3 (Previously Presented): The apparatus as claimed in claim 1, wherein said image data converting unit compresses the image data, decoding the image data, and attending to multi-value conversion of the image data.

Claim 4 (Original): The apparatus as claimed in claim 1, wherein said image data converting unit converts the format of image data by hardware.

Claim 5 (Original): The apparatus as claimed in claim 1, wherein said format unifying unit unifies the plurality of formats of image data into one of the plurality of formats.

Claim 6 (Original): The apparatus as claimed in claim 1, wherein said format unifying unit includes a conversion executing unit which converts the image data by utilizing said image data converting unit according to a unified format.

Claim 7 (Original): The apparatus as claimed in claim 6, wherein said format unifying unit includes a plurality of conversion executing units, one of which is said conversion executing unit, and others of which are identical to said conversion executing unit.

Claim 8 (Original): The apparatus as claimed in claim 7, wherein said format unifying unit assigns the plurality of conversion executing units to respective images, thereby converting image data of the images.

Claim 9 (Original): The apparatus as claimed in claim 8, wherein any given one of said conversion executing units converts image data of a corresponding one of the images by

utilizing said image data converting unit if a format of the image data of the corresponding one of the images is different from the unified format.

Claim 10 (Original): The apparatus as claimed in claim 1, further comprising a consolidated printing unit which consolidates and prints images whose formats are unified by said format unifying unit.

Claim 11 (Original): The apparatus as claimed in claim 10, wherein said format unifying unit notifies said consolidated printed unit that image data is ready for consolidated printing if said format unifying unit completes unification of the formats of image data after conversion of at least one of the formats or because of no need for conversion of at least one of the formats.

Claim 12 (Currently Amended): A method for consolidated printing by an image forming apparatus, in which hardware resources for use in forming of an image are provided, and a program runs in respect of the forming of the image, said method comprising the steps of:

generating a first thread configured to control conversion of first image data;
generating a second thread configured to control conversion of second image data;
unifying a plurality of formats of the first and second image data to a single format by converting the formats of the first and second image data by hardware under control of the first and second threads, respectively, said single format being one of NFC1, K4, K8, JPEG, RJ2K, a four-value format, a binary format, an eight-value format, and an MH/MR/MMR format;

resizing the first image data by increasing or decreasing the linear dimensions of the image under control of the first thread;

resizing the second image data by increasing or decreasing the linear dimensions of the image under control of the second thread; and

consolidating and printing the first and second image data whose formats are unified.

Claim 13 (Currently Amended): An apparatus for forming an image, in which hardware resources for use in the forming of the image are provided, and a program runs in respect of the forming of the image, said apparatus comprising:

a plurality of image data converting units configured to convert a format of image data by hardware, each of the image data converting unit configured to convert a format of image data by decoding the image data according to parameters that are set, to perform multi-value conversion and resizing of the decoded image data to produce processed image data, and to compress the processed image data, each of the image data converting units further configured to resize the image data by increasing or decreasing the linear dimensions of the image; and

a format unifying unit configured to unify a plurality of formats of image data corresponding to respective images by utilizing the image data converting units, the format unifying unit including a plurality of conversion executing units which correspond to the image data converting units respectively, the format unifying unit configured to set predetermined parameters in the image data converting units and to assign the conversion executing units in one-to-one correspondence to respective images to convert the image data corresponding to respective images in parallel into a unified image format; and

a controller configured to control the plurality of image data converting hardware units and the format unifying unit, the controller configured to create a first thread and a

second thread, the first thread configured to control conversion of first image data and the second thread configured to control conversion of second image data.

Claim 14 (Previously Presented): The apparatus as claimed in claim 1, wherein said image data converting unit is configured to change image data of an A4 size to an A3 size.

Claim 15 (Previously Presented): The apparatus as claimed in claim 1, wherein said image data converting unit is configured to change image data of an A4 size to an A5 size.

Claim 16 (New): The apparatus as claimed in claim 1, wherein the format unifying unit is configured to merge the first image data and the second image data into a single image with a single format.

Claim 17 (New): The apparatus as claimed in claim 16, wherein the controller further includes a third thread configured to control printing the single image.